Borough of Chepping Wycombe.

To the Mayor, Aldermen and Burgesses of the Borough of Chepping Wycombe.

ANNUAL REPORT OF THE MEDICAL OFFICER OF HEALTH.

APRIL, 1920.

GENTLEMEN,

I have the honour to submit to you my Annual Report for the year ended 31st December, 1919.

For convenience, it is divided into sections, such as:—Vital Statistics, Social Conditions and Physical Features, Infectious Diseases, Water Supply, Food, Scavenging and Drainage and General Sanitary Work.

General Physical Features.

The Borough is pleasantly situated in a valley of the Chiltern Hills which rise on the North and South sides to a height of several hundred feet. The river Wye runs through the Borough from west to east, and the subsoil water is at a high level. This, combined with the fact that the Town is somewhat enclosed by the hills, has a tendency to produce damp frosts in the Autumn and early Winter.

The town is surrounded by beautiful country, well wooded, of varied contour, and its healthiness is fully appreciated and shown by the number of visitors who spend week-ends and holidays in the district. I consider the air on the hills to be exceedingly good and strongly recommend it as a place of residence for town dwellers who desire to get away from the Metropolis and other crowded areas. Part of the Borough extends to the top of one of the hills where a good class of residential property has been erected.

The Town is an industrial one, the industry being Cabinet and Chairmaking; there are also several Paper Mills within and adjoining the Borough.

A weekly market is held in the High Street on Fridays for Cattle, Farm and other produce.

There is also a privately-owned Cattle Market held each Monday.

The total length of the Borough is about 3½ miles and running from east to west, open to the prevailing winds; what little smoke is seen from the factory chimneys, which would have a tendency to hang, is generally blown away. A large number of the factories and workshops obtain their power from the Central Electrical Works.

The Town is supplied with Gas and Electricity, the latter being the means of public lighting, and in normal times Wycombe is very well lighted. Both are privately owned concerns.

Items of General Interest.

Area of Municipal Borough	1,620 Acres
Rateable Value	£82,528
Product of Penny Rate	£290
Population, Census 1911	20,390
„ Estimated 1919	21,636
No. of Inhabited Houses, 1919	4,816
Ditto, Census 1911	4,550
Average number of Persons per House	4.28
Death Rate, 1919	11.1
„ 1918	14.9
Birth Rate, 1919	15.9
„ 1918	16.2
Infantile Mortality, 1919	61.04
„ 1918	72.3
Population of the Borough, 1821	5,599

SANITARY CIRCUMSTANCES OF THE DISTRICT.

Water Supply.

Analysis has clearly shown that the Public Water Supply, which is owned by the Corporation, is pure and wholesome, and though somewhat on the side of hardness, most of which is known as "temporary hardness," is perfectly suitable for a public supply.

It is derived from two deep wells 190 and 200 feet deep, through the chalk, and is pumped to two reservoirs and water tower on the hill from whence the Town is supplied. The supply is constant and the amount is unlimited.

	Parts per 100,000	Grains per Gallon.
Total Solids (dried at 120° C.)	30.30	21.21
Combined Chlorine equivalent to NaCl.	1.20	0.84
Nitric Nitrogen	0.34	0.24
Nitrous Nitrogen	Nil	Nil
Ammoniacal Nitrogen	0.0026	0.0018
Albumenoid Nitrogen	0.0004	0.0003
Oxygen absorbed in 4 hours at 27 C.	0.003	0.002
Lead or Copper	Nil	Nil
Temporary Hardness (equiv. to CaCo.)	23.8	16.7
Permanent Hardness ditto	1.3	0.9
Total Hardness ditto	25.1	17.6

"As judged by chemical analysis alone, this may be regarded as a water of excellent quality."

Bacteriological Examination.

Quantitative.

The average number of organisms, producing visible colonies on gelatine plates incubated at 20° C. for 3 days is found to be 11 per c.c.

The average number of organisms, producing visible colonies on agar plates incubated at 37.5° C. for 2 days is found to be 4 per c.c.

Qualitative.

B. Coli	Not found in 100 c.c.
Streptococci	Not found in 30 c.c.
B. Enteritidis Sporogenes	Not found in 100 c.c.

There is no evidence of sewage pollution revealed as a result of this examination, and judged from a bacteriological standpoint the water is of excellent quality.

22 samples of domestic well water were taken for analysis during the year, 11 of which proved unfit for drinking purposes. 9 of these have been remedied and the remainder are in hand.

The daily consumption of water is 560,000 gallons.

Rivers and Streams.

The condition of the river has on several occasions been far from satisfactory, and much of the nuisance is caused by people resident along its banks making use of the stream as a repository for all kinds of refuse which accumulate and cause obstructions. I suggest that the assistance of the Police be sought to detect the offenders and proceedings be taken against persons caught throwing refuse into the stream in accordance with Section 47 of the Public Health Acts Amendment Act, 1890.

Again much of the flooding that took place during the year was caused by walls and dilapidated buildings falling into and obstructing the free flow of the water. The bed of the stream beneath Newland and Temple Bridges requires thorough cleansing.

Drainage and Sewerage.

The water carriage system is the method for the disposal of slops, etc., within the Borough, with the exception of that portion east of Hatter's Lane to the Boundary, including Marsh Green and Back Lane, Hughenden Avenue and a few isolated houses. In the Marsh area there are 403 houses connected to 175 cesspools, which are mostly overflowing and a constant nuisance to public health. The subsoil in this area must be saturated with sewage, and I would press upon you the necessity of remedying the existing insanitary conditions as early as possible. Attention has been drawn to this matter in previous reports. The sewage from the Borough is at present disposed of by Bacteria Beds, Settling Tanks, and Land Filtration.

Closet Accommodation.

Within the Borough we have approximately:—

Privies	10
Pail Closets	189
Cesspools	191
Water Closets	4600

There is a great number of houses in which the w.c.'s are flushed by hand, although the water supply is connected to the house. This method of flushing is to be strongly condemned as one finds there are many who neglect to do so regularly, with the result that the drain gets blocked and the result is a nuisance which could be avoided by a proper flush to the w.c. The unsatisfactory type of w.c. pan known as the "Long Hopper" should be replaced as occasion occurs.

Scavenging.

The collection of house refuse is undertaken by the Corporation, and I strongly recommend a return to pre-war collections, as accumulations are frequent in many parts. "Trade Refuse" is now removed on payment of a small charge. From a health standpoint, and the cleanliness of the streets, it would be a decided improvement to note the disappearance of the numerous old boxes and buckets from our streets, and I suggest that householders should be requested to deposit the receptacle in the forecourt whenever possible and not on the pavement. The refuse is disposed of to a certain extent in a modern Destructor belonging to the Corporation, but I desire to call attention to the huge accumulation of refuse on the Destructor site which is sure to constitute a nuisance in hot weather; a breeding place for flies and a harbour for rats. The Destructor should be completed as soon as possible so as to be able to cope with the whole of the refuse of the Borough.

The pail closets are cleared by the Corporation in the Marsh area and also the whole of the cesspools in the Borough, yet the efficiency of dealing with the latter leaves much to be desired.

The cleansing of the public streets during the year has left much to the imagination. The advent of motor traffic has brought about new conditions. The dust nuisance is aggravated and mud is the order of the day in wet weather. What is more, when the road surfaces are defective, as many of them are, and mud and water is plentiful, fast moving motors transfer this mixture not only on to the footpath and pedestrians, but on shop windows and in considerable quantities. This is a source of great annoyance, and the first thing to do is to keep the road surfaces in a more perfect condition. The practice of scraping mud off one road and using the same mud as binding material for new metal on another road appears one that should be discountenanced, as it adds to the mud and dust nuisance.

Sanitary Inspection of the District.

A classified statement of inspections made during the year has been given by the Sanitary Inspector in accordance with the requirements of Article XX (16) of the Local Government Board Order as follows:—

Inspection of	Houses (including under Housing Act)...	563
„	Schools	32
„	Factories	332
„	Workshops	
„	Bakehouses	34
„	Dairies and Cowsheds	39
„	Ice Cream Shops	9
„	Slaughterhouses	421
„	Offensive Trades	8
„	Fishshops	42
„	Common Lodging Houses	7
„	Tents, Vans and Sheds	7
„	Markets	69
		1562

As a result of these inspections the following notices were served:—

Informal Notices and Letters	457
Statutory Notices	56

Further details will be found in the Sanitary Inspector's Report.

Schools.

The sanitary condition and water supply of the public elementary schools receive periodical attention by the Sanitary Inspector, and are kept in a fairly good sanitary condition. Children coming from houses where cases of infectious disease has been notified are excluded from school and notice is sent to the Head Teacher.

FOOD.

Milk.

The Sanitary Inspector, who is also Inspector under the Sale of Food and Drugs Acts, has taken 25 samples for analysis, and of these, 15 were certified Genuine and 10 Inferior, and I desire to draw your attention to the Report of Mr. Chadwick on the subject of "Food Supply." He devotes considerable time and energy to the question, and his observations are worthy of note.

Five samples of milk were submitted for examination for Tubercle Bacilli and one was found to be infected. The milk, though retailed in the Borough, was produced in the Rural District, and notice was sent to the County Medical Officer and the Rural District Council.

Meat Inspection.

A considerable amount of diseased meat was dealt with by Mr. Chadwick.

Slaughterhouses.

One new Slaughterhouse has been erected during the year and all have been kept under close observation.

INFECTIOUS DISEASES.

Scarlet Fever.

This disease contributed 28 cases of illness and no deaths. This disease when of a mild character is difficult to detect, and timely and efficient isolation of the first cases is of great importance and should always be borne in mind. A point of great interest in connection with this disease it that hospital isolation, even when practiced as thoroughly as possible, has failed, in some instances at least, to diminish its prevalence for some time. Such a statement, however, is not intended to convey the impression that Hospital isolation is not beneficial; as a matter of fact, the very mildness of the disease in some cases is one of the chief causes of its sometimes continued prevalence, as a large proportion of the slight cases where perhaps the rash was scarcely visible and only a sore throat complained of, must necessarily escape detection for some days. That the mortality is not a true index of the seriousness of the disease in many cases is particularly true in the case of Scarlet Fever, and the permanent injuries inflicted by this disease are many and cannot always be accurately traced; this fact alone is a strong reason for taking all possible precautions against the spread of the disease. These milder cases, however, are just as infective as the more severe ones, and by their unrestricted movements and possibly by their attendance at schools, picture halls, parties, etc., they spread the infection with great ease.

Diphtheria.

There were notified 39 cases resulting in two deaths, giving a rate of .09.

With regard to the low mortality rate for this disease, there are probably several forces at work, viz.:—

(a) The facilities offered to Medical Practitioners for the bacteriological diagnosis of the disease, thus bringing to light cases which otherwise would have remained undiagnosed, or uncertain.

(b) An increase in use of anti-diphtheritic serum which is supplied free of charge by the Borough Council.

(c) Efficient hospital treatment in the majority of cases.

Whooping Cough.

From this disease and its complications no deaths were registered during the year.

Besides giving the deaths occasioned by this disease in the majority of the Reports there is no other information. In addition to a direct mortality, it is also the cause of a considerable indirect mortality annually, leaving the child an easy prey, especially to lung troubles, including phthisis. This mortality could be much reduced if the disease was regarded more seriously by parents and the patients more carefully isolated and nursed.

Owing to the long period of infectivity of Whooping Cough, the disease is an extremely difficult one to prevent the spread of, and all that is practicable at present is that the Sanitary Department and Teachers in the Schools should co-operate in preventing its spread. Children with persistent coughs (and especially so if the cough be spasmodic) should not be allowed to attend school.

Small Pox.

No case was notified during the year, though a few cases were notified in the vicinity. A special meeting of the Health Committee was called and preparation made for dealing with any cases should they arise.

Typhoid or Enteric Fever.

There was one case, which was removed to your Isolation Hospital.

I desire to call attention to the fact that there is no proper facility for the isolation and nursing of this disease, and to recommend that such be provided.

Influenza.

This disease was responsible for 14 deaths, 7 males and 7 females.

Diarrhoea.

This disease is variable as regards its prevalence and is intimately associated with the temperature during the summer months, and the condition of articles of food and drink resulting therefrom. It is essentially an infantile affection and apart from climatic conditions, the most important predisposing causes of the disease which is likely to be so fatal amongst infants are insanitary surroundings, overcrowding, injudicious feeding (with indigestible, unwholesome and adulterated food) and maternal neglect. More attention should be paid to the nursing, rearing and feeding of infants, and especially to the provision of pure and unadulterated milk supplies. The contamination of milk and other infantile foodstuffs by flies is probably the commonest cause of this fatal disease and should be guarded against by keeping all such foodstuffs continually covered with muslin or gauze, the killing of as many flies as possible, especially between April and July, the breeding time, and the destruction of their breeding places, which may be summed up in the words "decaying refuse," "manure heaps," and "dirt."

Phthisis (Pulmonary Tuberculosis or Consumption).

The deaths attributed to Phthisis numbered 29. This is equivalent to a death rate 1.4, the majority occuring between the ages of 25 and 45.

Heredity, overcrowding, insufficient nourishment, infection, ill-ventilated rooms are some of the common causes of this scourge. I cannot emphasize too strongly the effectiveness of thorough ventilation, as THAT alone will act as a powerful deterrent factor in all these cases.

Other Tubercular Diseases.

Other Tubercular diseases caused eight deaths. The total number of deaths caused by the various forms of Tuberculosis was 37, or a rate of 16% of the total number of deaths from all causes.

Infection comes from several directions, such as:—(1) from human beings suffering from the disease, from their discharges through the mouth and nose and from the dried expectoration of consumptives being blown about as dust. Don't spit. (2) from animals suffering from the disease.

As regards human beings forming the source of infection, it is evident that until patients so affected cease to reside in houses occupied by two and sometimes three families, they will continue to spread the disease to others who are susceptible.

As regards animals, it is most unfortunate that cattle, our chief supply of meat, and especially the cow, the source of our children's chief food, should be so liable to this infective malady. In seven out of the twelve carcases wholly condemned on account of Tuberculosis during the year, the disease was present in the udder.

Maternity and Child Welfare.

One can report very favourably on the progress of the Infant Welfare Centre and the activities of the Health Visitor. One must also add a word of praise and thanks to the ladies who kindly give of their time and help at the centre, as well as on the Committee. All mothers are encouraged to bring their infants to the Centre each week, where they can enjoy a cup of tea and a gossip, relaxations which are so dear to them. Whilst this is going on, the Nurse, Dr. Clements and myself are able to pass amongst them, give advice to such as need it, and moreover keep a watchful eye on the infants. The children are weighed and records kept. Glaxo, a dried milk preparation, is disposed of to the mothers at cost price where necessary and in exceptional cases below cost price. The Maternity and Child Welfare Committee have decided to start an anti-natal Clinic, which I hope to have in operation soon. As will be seen from the report of the Health Visitor much useful work is done.

"I have pleasure in submitting the report on the work as Health Visitor for the year 1919, and in doing so wish to say that both mothers and children appear to have benefitted by their visits to the weekly Clinic, and without exception my visits to their homes have been welcomed.

Baby week was celebrated by holding a Baby Show, which proved a great success.

On July 22nd a Doctor from the Ministry of Health paid a visit to the Welfare Centre, and the suggestions made have been carried out.

An anti-natal Clinic has been started and is to be held in connection with the Welfare Centre.

Glaxo (a dried milk) is sold at the Centre and in certain necessitous cases has been given free.

On the whole, the work seems to be appreciated, and I have to thank your Committee for their kind support and consideration at all times.

Yours obediently,

M. E. JOHNSTON."

No. of Notifications received by Health Visitor	344
,, Still Births	10
,, Children visited	2478
,, New Visits	271
,, Breast Fed Infants	248
,, Artificially Fed Infants	23
,, Attendances at the Welfare Centre	922
,, Anti-natal visits paid	24
,, Notifications transferred to other districts	12
,, ,, received from other districts	8

The Midwives are supervised by an Inspector who is appointed by the Bucks County Council.

SANITARY ADMINISTRATION.

Isolation Hospital.

The hospital is situated three miles outside the Borough and consists of:—

Administrative Block, brick building.
Scarlet Fever Block, 12 beds. } Galvanised Iron.
Diphtheria Block, 12 beds. }

and provision for 8 cases of Small Pox in brick built pavilion at the end of the grounds.

There is no observation ward, which cannot be considered satisfactory.

The Scarlet Fever and Diphtheria Blocks consist of two wards heated by stoves, with a Nurse's Ante-room and Kitchen combined, and at the far end of each ward are lavatories, bathroom and scullery. The water supply is derived from the rain being carried to tanks from the roofs. This supply proves insufficient in dry weather and water has then to be carted to the hospital from the main near Cressex Farm.

The staff consists of:—Matron, two Nurses, Maid, Wardmaid and Porter.

The disinfecting station consists of a Washington-Lyon's Steam Disinfector and Cupboard for books, etc., which cannot be put into the Steam Disinfector to be fumigated.

The Laundry, etc., is quite inadequate, and cannot be considered adaptable for the purposes of an Institution.

The accommodation at the hospital is sufficient for its purposes, viz., to endeavour to control the spread of infectious diseases by removal of the first cases, but proves inadequate for a severe epidemic. The patients are removed to the hospital in an ambulance provided by the Corporation, but on discharge, are removed by the parents.

Method of controlling Infectious Disease.

On receipt of notification, the house is visited as soon as possible, enquiries made and noted, and generally the patient is removed. The parents are advised to keep close watch on any of those exposed to infection and to send for their medical attendant if any other member of the family falls ill.

After removal or recovery of the patient, if isolated at home, the bedding, etc., is put through the disinfector and the room thoroughly fumigated. The School Authorities are also informed and advised when a case is reported, that no children should be admitted to school from the infected house. With regard to Diphtheria, bacteriological examination is made, and no patient is discharged from the hospital until certified free of infection and fit to go home. Anti-Toxin is provided by the Corporation.

Public Health Staff.

Your staff consists of myself, Acting Medical Officer of Health, part time and Medical Superintendent of the Isolation Hospital, Mr. Chadwick, Sanitary Inspector and his Assistant, Mr. Martin, and a Disinfector. Mr. Chadwick also discharges the duties of Inspector under the Housing Acts, Sale of Food and Drugs Acts, Rag Flock Act, etc., etc., and is the Inspector of Common Lodging Houses, Dairies, Cowsheds and Milkshops, Slaughterhouses and Food Supply.

Chemical and Bacteriological Work.

All Chemical and Bacteriological work is carried out by the Clinical Research Association (except under the sale of Food and Drugs Act, which is done by your own Analyst, Mr. Cassal) and the work has proved satisfactory.

Adoptive Acts and Bye-laws.

Adoptive Acts.

- Infectious Disease Prevention Act, 1890.
- Public Health Acts Amendment Act, 1890, Part 3.
- Public Health Acts Amendment Act, 1907.

Bye-laws.

- Slaughterhouses.
- Common Lodging Houses.
- New Streets and Buildings.
- Cleansing of Footways.
- Removal of House Refuse.
- Cleansing of Privies.
- Prevention of Nuisances.
- Carriage of Offensive Matters.
- Tents, Vans, etc.

Regulations.

- Dairies, Cowsheds and Milkshops.

TABLE I.

Birth Rate, Death Rate and Analysis of Mortality during the year 1919.

	Birth Rate per 1000 total population.	Annual Death Rate per 1000 Civilian Population.								Rate per 1000 Births.	
		All Causes.	Typhoid.	Small Pox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria.	Violence.	Diarrhœa Enteritis under 2 years.	Total Deaths under 1 year.
England and Wales ...	18·5	13·8	·01	·00	·1	·03	·07	·13	·47	9·59	89
148 Towns, Census Population 20,000 to 50,000 ...	18·3	12·6	·01	·00	·1	·03	·08	·12	·39	8·67	90
High Wycombe	15·89	11·1	·00	·00	·00	·00	·00	·09	·24	·00	61·04

Vital Statistics.

All figures on which the Birth and Death rates are based are supplied by the Registrar General's Department. It will be seen on the Reference Table No. 1, the Death Rate is lower than the rest of England and Wales, and below the average of 148 towns with a population between 20,000 and 50,000.

The Infantile Mortality is also considerably less, for an industrial town I consider it very low indeed, being at the rate of 61.04 per 1,000 births.

The Birth Rate for the year is probably the lowest recorded, 15.89 per 1,000 inhabitants. The births were 179 males and 165 females.

The Illegitimate Births number 28 (13 males and 15 females) giving a rate of 1.3 per 1,000.

No Deaths were recorded from the following diseases :—Enteric, Scarlet Fever, Small Pox, Measles, and Whooping Cough.

TABLE II.

Deaths registered during the Calendar Year 1919.

Causes of Death.	All ages.	Males.	Females.
Diphtheria and Croup	2	1	1
Influenza	14	7	7
Phthisis (Pulmonary Tuberculosis)	29	13	16
Tuberculous Meningitis	3	1	2
Other Tuberculous Diseases ...	5	4	1
Cancer, malignant disease ...	29	14	15
Organic Heart Disease	21	10	11
Bronchitis	21	7	14
Pneumonia (all forms)	14	9	5
Other diseases of respiratory organs	1	1	
Appendicitis and Typhlitis ...	2	1	1
Cirrhosis of Liver	1	1	
Nephritis and Bright's Disease ...	7	3	4
Congenital Debility, etc. ...	10	5	5
Violent Deaths, excluding Suicide	5	4	1
Other Defined Diseases	57	29	28
Diseases ill-defined or unknown ...	1	1	
Totals	232	111	121

HOUSING.

General Housing Conditions.

(1) The total number of dwelling houses within the Borough is 4,816. The total number of working-class houses up to and including £20 gross per annum is 4,652.

Plans for four houses for the working classes have been passed during the year, and the houses are in the course of erection.

(2) The estimated population of the Borough is 21,636.

(3) The average annual increase of population for the five years before the war (1909-1913) as taken from the Birth and Death Returns is 245 per annum.

The average number of working class houses built annually during the five years before the war was 32.

The number of working class houses built between January 1st, 1915, and December 31st, 1918 was 23.

At four persons per house the normal growth of population would require 61 houses per annum. Since 1909, 183 working class houses have been erected against 610 required to meet the increased population, or a deficiency of 427 houses.

Overcrowding.

Of overcrowding there is a considerable amount, which I estimate at least 7% in the working class houses. During the year a house-to-house inspection of one area of 402 houses showed that 19.4% were overcrowded. The inspection of another area of 160 houses showed 14.3% were overcrowded.

In the years immediately preceding 1914, the amount of building had fallen very much below the annual requirements of new houses. There was a considerable shortage of houses within the Borough before the war and the position is rendered more difficult by reason of the greatly increased cost of building due to war conditions. The present housing problem differs from the pre-war problem not only in degree but in kind. The shortage has effected the houses of all classes of people and is not confined to those of the working class. The standard of accommodation and equipment desired in their houses by all sections of the working class people has been rising, and one must view with approval this tendency towards an improved standard.

Measures taken or contemplated to meet the shortage of Houses.

The Town Council have elected a Housing Committee to deal specially with the difficult question of Housing. The Council have purchased a site of 10½ acres at Terriers and are now awaiting sanction from the Ministry of Health to a loan for the roads and sewers. The first part of the scheme on this site provides for 56 houses with 3 bedrooms. The Committee are negotiating for a site in the Eastern Ward, situated east of Cock Lane. This site will provide for 106 houses. Other sites are also receiving the attention and consideration of the Committee in Hampden Road and Desborough Avenue, but there appears to be much unneccessary delay in the Housing Department of the Ministry in dealing with this acute problem. The Housing Committee have decided that it is necessary to erect 1200 houses, and until a large number of them are erected it will be impossible for them to proceed with the demolition of houses at present unfit for habitation, a large proportion of which are also overcrowded.

Fitness of Houses.

The standard of general fitness is on the whole fairly good, though a considerable number of houses suffer from dampness, chiefly on the ground floors. The difficulties of property owners in carrying out repairs are considerable, arising chiefly from the high cost of labour and materials, and house property in many cases forms the chief source of income. It has been no uncommon thing for an amount equal to two or three years' rent to be expended on doing a few repairs. It appears that some alteration in the law dealing with rents is long overdue, as they are the same as in 1914.

Section 17, Housing Act, 1919.

No. of Houses inspected	563
„ „ unfit	16
„ „ demolished voluntarily	6
„ Closing Orders made...	Nil

I would like to express my indebtedness to all my brother officials for many kindnesses.

I am, your obedient servant,

G. D KING BANNERMAN,

Acting Medical Officer of Health.

Borough of Chepping Wycombe.

To the Mayor, Aldermen, and Burgesses of the Borough of Chepping Wycombe.

ANNUAL REPORT OF THE SANITARY INSPECTOR.

APRIL, 1920.

GENTLEMEN,

I have the honour to submit to you a report of the work done in my department during the year 1919, being my thirteenth Annual Report as your Sanitary Inspector.

I. General (Public Health Acts).

No. of Inspections (total)	2776
Complaints received	308
Nuisances abated without complaint	81
Nuisances abated by persons responsible	402
Notices served:—	
(a) Preliminary and Letters	457
(b) Statutory	56

II. Housing Nuisances.

Houses unfit for human habitation	16
Houses Inspected (Housing, Town Planning, etc., Act)	563
Roofs repaired	39
Spouts cleansed and repaired	28
Pavements repaired	19
Overcrowding abated	1
Dirty Houses cleansed	23
Other defects remedied	31

III. Drains, W.C's., Privies, etc.

Total defects found	171
Drains cleared, repaired and ventilated	119
New Drains laid	15
Privies repaired	5
W.C's. repaired	32
W.C's. rebuilt	6
Inspection Chambers built	7

IV. Slaughterhouses.

Number on Register	9
Number of Inspections	421
Number of defects found	2
Number of defects remedied	2

V. Bakehouses.

Number on Register	27
Number of Inspections	34
Number of defects found	6
Number of defects remedied	6

VI. Common Lodging Houses.

Number on Register	2
Number of Inspections	7
Number of defects found	1
Number of defects remedied	1

VII. Dairies, Cowsheds and Milkshops.

Number of Dairymen or Purveyors of Milk on Register	19
Number of Cowkeepers on Register	19
Number of visits made	39
Number of defects found	7
Number of defects remedied	7

VIII. Factories and Workshops.

Number on Register	313
Number of Inspections	332
Number of defects found	36
Number of defects remedied	23

IX. Various.

Removal of Animals improperly kept	18
Visits to Schools	32
„ Ice Cream Shops	9
„ Fried Fish Shops	42
„ Markets	69
„ Offensive Trades	8
„ Tents, Vans and Sheds	7

X. Food.

Seizure or surrender of Unsound Food (for details see Tables Nos. 2, 3, 4, 5).

TABLE I.

INFECTIOUS DISEASE AND DISINFECTION.

	1916	1917	1918	1919
Inspection and reinspection of infected houses	573	274	378	90
Number of infected houses disinfected	168	193	116	81
Number of Rooms disinfected	316	216	250	120
Number of houses disinfected after Phthisis...	8	19	21	13
Number of Schools disinfected	10	10	10	5

Disinfection.

The Steam Disinfector has again been very busy. The total number of articles disinfected during the year (excluding patients' clothing when being discharged from the Isolation Hospital) was 5,704. For the Military Authorities the number of articles disinfected was as follows:—

Blankets	2635
Horse Rugs	1090
Waterproofs	8
Various	272

Disinfection was carried out after the following Infectious Disease:—

Diphtheria	34
Scarlet Fever	28
Typhoid	1
Consumption	13
Cancer	3
Measles	—
Various	2
	81

The number of cases of Infectious Diseases in the previous ten years are as follows:—

1909	1910	1911	1912	1913	1914	1915	1916	1917	1918
55	34	50	199	74	108	192	202	78	116

MEAT CONDEMNED AS UNFIT FOR HUMAN FOOD AND SURRENDERED OR SEIZED.

TABLE II.

Carcases totally unfit for Human Food.

	Tuberculosis	Maliginant Diseases.	Inflamatory Disease, Pleurisy, Peritonitis, etc.
Ox, Bullock or Cows	11	—	1
Pigs	1	—	6
Sheep	—	—	2

TABLE III.

Total weight of condemned Fresh Meat.

	Tons	Cwts.	Qrs.	lbs.
Beef in Carcase	4	19	0	12
Pork in Carcase		5	1	8
Mutton in Carcase		1	0	3
Meat not in Carcase	1	14	0	3
Organs	1	1	3	7
Total	8	1	1	5

TABLE IV.

Other Foodstuffs condemned as unfit for Human Food.

	Tons	Cwts.	Qrs.	lbs.
Butter			2	14
Margarine				22
Herrings	4	18	0	0
Bloaters			3	8
Hake				26
Apples		6	0	0
Sugar		2	0	0
Dates	2	0	0	12
Hams and Bacon		12	2	15
Currants			2	0
Peaches		3	2	0
Rabbits		2	1	6
Tomatoes		1	0	8
Total	8	7	3	27

TABLE V.

Various organs and offal condemned as unfit for Human Food.

	Lungs.	Heads.	Livers.	Stomachs.	Messentery.	Melts.	Tongues.
Tuberculosis:							
Cattle	17	17	17	17	17	17	17
Pigs	2	6	1	1	1	2	
Sheep							
Distomatosis:							
Cattle			15				
Pigs			3				
Sheep			11				
Echinococcus Veterinorum:							
Cattle							
Pigs	1	1	1	1	1	1	
Sheep	8		14				
Actinomycosis:							
Cattle		2					2
Pigs							
Sheep							
Strongylus rufescens:							
Cattle							
Pigs							
Sheep	14	1	3	1	1	1	
Pyæmia:							
Cattle	11		8				
Sheep	1	1	2	1	1	1	
Inflammatory Cattle Diseases, Pleurisy, Peritonitis, etc.:							
Cattle	1	1	1	1	1	1	1
Pigs	4	4	4	4	4	4	4
Sheep	1	1	1	1	1	1	1

The whole of the food supplies come under notice, in so far as it is practicable. Many commodities give rise to no anxiety.

The subject may be roughly divided into five sections as follows:—Fish, Poultry, and Rabbits, Fruit and Vegetables, Meat and Milk.

Fish.

Our supplies are derived from other markets and from the sea boards. The quantity condemned during the year was 4 tons 19 cwt. and 6 lbs.

Poultry and Rabbits.

Poultry may be dismissed this year with a word of commendation.

Rabbits sold are of two classes—English and Foreign or Colonial. The home-killed are sold in a fresh state. The foreign are received in a frozen state and are "thawed out" before being offered for sale.

No "substitutes" were found, and the quantity condemned was 2 cwt. 1 qr. and 6 lbs.

Fruit and Vegetables.

The quantity condemned was 2 tons 11 cwt. 20 lbs.

Meat.

The total quantity condemned was 8 tons 1 cwt. 1 qr. 5 lbs—a very serious quantity and chiefly tuberculous. The Royal Commission on Tuberculosis state—"We must conclude that mammals and man can be reciprocally infected with Tuberculosis. The evidence we have accumulated goes to demonstrate that a considerable amount of Tuberculosis in childhood is to be attributed to the infection with Bacilli of the bovine type, transmitted to children in meals, consisting largely of the milk of the cow." What a serious accusation against the poor cow!

Slaughterhouses.

The only person between diseased or unsound food and the dining table is the Meat and Food Inspector, and he can only efficiently perform his important duty, so far as meat is concerned, in a well-arranged and well-equipped abattoir. It is a calamity that one was not erected when the time was opportune, viz., before 1914.

Reference to tables 2, 3, 4, and 5 will give some idea of the amount of work entailed; no less than 421 visits have been paid and the following carcases examined:—

(a)	Beasts	451
(b)	Sheep	825
(c)	Pigs	489
		1765

It must not be thought this work proceeds without murmurings, it never will; but it affords one more pleasure to report that the Traders accept the position following an explanation of the diseased condition, than it would to record a long string of prosecutions. My duty is to give the consumer the maximum protection.

One new slaughterhouse was erected during the year and is a great improvement on some of the existing ones. The occupier of a very unsatisfactory slaughterhouse was seen by a deputation of the Council and agreed to give up the use of such slaughterhouse in the centre of the town as soon as the necessary alterations could be made to other premises he had bought.

The unsound foodstuffs have been disposed of as follows:—

FISH has been disposed of as manure on allotments, and when in larger quantities, to farmers.

FRUIT has been disposed of to pigkeepers for feeding purposes, and has been much appreciated.

MEAT AND BUTTER have been disposed of for convertion into fats, glue and glycerine, and has realised to the retailers, etc., a sum of £38 1s. 7½d.

MEAT, when in small quantities, has been disposed of to poultry keepers.

OFFAL, when badly diseased, has been burnt at the Refuse Destructor.

SALE OF FOOD AND DRUGS.

TABLE VI.

	Genuine	Inferior	Adulterated	Total
Milk	15	10	—	26
Milk Cream	1	—	—	1
Salad Cream	1	—	—	1
Salad Oil	4	—	—	4
Margarine	4	—	—	4
Borax	3	—	—	3
Epsom Salts	2	—	—	2
White Pepper	1	1	—	2
Boracic Acid	1	—	—	1
Baking Powder	1	—	—	1
"Nula" Nut Cream	1	—	—	1
Marmalade	—	—	1	1
Cornflower	1	—	—	1
Egg Powder	—	1	—	1
Sweetened Custard Powder	—	1	—	1
Service Coffee	—	1	—	1
Lemon Cheese	—	1	—	1
	35	15	1	52

One sample of Milk was broken in transit.

Sample of Marmalade consisted of 100% Silicate of Soda ("Water Glass").

One sample of Pepper, the actual adulteration of which could not be ascertained.

Percentages:—

Genuine	68.6%
Inferior	29.4%
Adulterated	2.0%

Number of Informal samples taken ...	24
Number of Formal samples taken ...	28

Percentages for 1918:—

Genuine	66.6%
Inferior	13.4%
Adulterated	20.0%

MILK.

TABLE VII.

Samples of Milk taken for the detection of Tubercle Bacilli.

1. Necessity for further samples.
2. ditto
3. Tubercle Bacilli not found.
4. Tubercle Bacilli detected.
5. Tubercle Bacilli not found.

The Milk that was infected (sample No. 4) was produced in the Rural District The R. D. Sanitary Inspector was written to on the 24th April, 1919. A further letter was written to the County Medical Officer on 15th July, 1919.

TABLE VIII.

Samples of Milk taken for the detection of dirt.

1. Sediment comparatively small.
2. Sediment fair in amount.
3. 100 parts per 1,000,000.
4. 120 " "
5. 130 " "
6. 70 " "

It would not be difficult to write at length on the several important phases of the milk question.

During the year I took particular note of all milk-giving cows that came for slaughter and that had passed through the markets. In seven out of the 12 carcases that were wholly condemned on account of Tuberculosis, the disease was present in the udder, and the animals had almost to the time of slaughter been giving milk. How many thousands of gallons of diseased milk had been consumed by the public? Yet the authorities are prepared to spend fortunes in the establishment and upkeep of Hospitals and Sanatoria for the treatment of patients who have got the disease and do nothing to cut off some of the sources of supply of infection. The general public exhibits a sublime credulity in the matter and make no enquiries.

As the law stands at present, the animal may give tubercular milk in abundance, but unless the udder is clinically tubercular, that milk may legally be sold. A milkman is prevented by law from adding clean water to his milk, though he can with immunity dilute it with germs of tuberculosis. When milk contains Tubercle Bacilli one can readily see the danger to the public, and more especially the children. New legislation is needed making it obligatory on every producer of milk to provide and maintain under proper conditions cowhouses with the necessary appurtenances to render them cleanable and in every way sanitary. There is no other solution. To talk about the value of milk and the importance of it from the point of view of the preservation of child-life is useless until the problem of supply has been tackled at the source. Producers and distributors do not exist for the special purpose of providing a national food of supreme importance. All persons engaged in this industry should be licensed and power given to a local authority to revoke the license if he fails to comply with well-drawn regulations. The present regulations are totally inadequate and out-of-date.

TABLE IX.

Housing (Inspection of District) Regulations, 1910.

Number of Houses		563
Cases of Overcrowding		101
Water supply from Public Main		347
Water supply from Tuber Pumps or Wells		185
Houses without Drains		64
Drainage defects		143
W.C's. without water supply		237
W.C's. with water supply		129
Closet accommodation, insufficient or defective		240
Number of Pail Closets		189
Number of Privies		9
Number of Cesspools		175
Dampness in Bedrooms		372
Dampness in Living Rooms		419
Defective Roofs, Gutters, etc.		321
Defective Floors, etc.		343
Unsuitable Outbuildings		41
Dirty Rooms		418
Improper Food Store		492
Unsuitable Dustbin		416
Absence of Sinks		136
Defective lighting in any rooms		40
Defective ventilation in any rooms		89
Number of houses with one Bedroom		1
Number of houses with two Bedrooms		198
Number of houses with three Bedrooms		266
Number of houses with four or more Bedrooms		98
Number of Adults	1741	2190
Number of Children	449	
Average number of persons per house		4.35
Number of Bedrooms used by more than two persons		233

Local Housing Conditions.

A glance at Table IX will give some idea of the scope of the work of inspection under the Housing, Town Planning, &c., Act, 1909, which had to be much curtailed during the war. The Table reveals much overcrowding and a great deficiency in suitable housing accommodation. Many instances were found where more than one family were occupying one house. This is distinctly unsatisfactory, not only from a health, but a moral point of view. The moral side of the housing problem is often lost sight of, but it is very real, and quite equal in importance to the purely sanitary aspect.

Other common defects are dampness in walls and floors, not excessive in the majority of cases, but sufficient to impair the value of the houses from a sanitary point of view. The causes of these conditions are several. Many of the older houses are built without damp courses in the walls. Another cause is the making of flower beds against the walls, a fault too common with many tenants, and the absence or defective condition of the eaves gutters and rainwater pipes. Perhaps the most important defect found in local cottage property is undoubtedly the absence of proper food stores. So far as cleanliness, there appears in many cases a half-way stage, a condition where the house is not scrupulously clean or over dirty. Such houses, however good structurally, cannot be entirely healthy until the occupants of such houses are taught a knowledge of the great value of soap and water sanitation. Too much confidence is placed in strong smelling disinfectant. These fluids are often used to cover up a smell which elbow grease would remove. The most pressing side of the problem to-day is the shortage of houses, resulting from the cessation of building, the present high prices of building material and labour brought about by the war.

Within the Borough, and especially near the boundary, there is a considerable acreage, free from buildings, yet there are in other parts considerable areas which are grossly overcrowded. If this population, now overcrowded on space, was evenly distributed over the whole area there would be plenty of room for everyone. Areas exist within the Borough where over 40 houses are crowded to the acre or a population of at least 172 to the acre. Your Bye-laws allow of 56 houses to the acre being erected.

It is necessary to go further than building houses, which hardly touches the fringe of the Housing problem. Every wastrel substracts from the common fund the support of a non-producing unit. Thus good citizens are improverished, sobriety and thrift deprived in part of their reward, to maintain inefficiency. There is one more efficient means of attacking the problem. It should begin in school and it should be carried through adolescence. One can hardly blame a person for not knowing the value of cleanliness, fresh air and sunlight, who has spent his days in a squalid court and who has not been taught even in childhood the elements of hygiene or the elementary principals of sanitation. Even to-day these subjects are conspicuous by their absence in the syllabus of our schools.

Water Supply.

Twenty-two samples of water were taken for analysis, fourteen samples for chemical analysis and eight for bacteriological examination. Eleven water supplies were reported upon as being quite unfit for drinking purposes. Of these, eight have been replaced by the Public Water Supply, one supply has been purified and two are outstanding. By reason of the above samples, 16 houses and 1 factory have been connected with the Public Water Supply.

The result of the analyses of the Public Water Supply is as follows:—

CHEMICAL ANALYSIS.—"As judged by chemical analysis alone, this may be regarded as a water of excellent quality."

BACTERIOLOGICAL ANALYSIS.—"There is no evidence of sewage pollution revealed as a result of this examination, and judged from a bacteriological standpoint the water is of excellent quality."

TABLE X.

COMMON LODGING HOUSES.

Return of the number of lodgers sleeping at these houses during the year 1919.

	Numbers of Adult Lodgers.		Numbers of 8 years and under 21 years.		Numbers of 8 years and under.		
	M.	F.	M.	F.	M.	F.	Total
January	668	—	—	—	—	—	668
February	595	—	—	—	—	—	595
March	746	—	—	—	—	—	746
April	607	—	—	—	—	—	607
May	735	—	—	—	—	—	735
June	810	13	—	—	—	—	823
July	830	38	—	—	—	—	868
August	725	14	—	—	—	—	739
September	590	40	—	—	—	—	630
October	641	14	—	—	—	—	655
November	659	15	—	—	—	—	674
December	637	40	—	—	—	—	677
Total	8243	174	—	—	—	—	8417
Total for 1918	9441						9441
„ 1917	7271	363	14	8	17	52	7698
„ 1916	6382	656	11	4	13	2	7068
„ 1915	7906	636	50	19	17	6	8634

There are two registered Common Lodging Houses with a total accommodation for 39 persons per night. Only one house has provision for married couples or women. The houses have been fairly well conducted during the year and no serious defects have been found. For comparison, I attach figures for the previous four years, showing number of lodgers, and it is interesting to notice that during the year 1919 no persons under 21 years of age slept at either house.

FACTORY AND WORKSHOP SANITATION.

Factories.

The sanitary inspection of factories is in the first instance the duty of His Majesty's Inspector of Factories, but where any defect remediable under the Public Health Act is found, then the matter is referred by the Inspector to the Local Authority to deal with.

A number of reports were received from the Factory Inspector during the year as follows:—

Insanitary accommodation	11
Re means of escape in case of fire, overdue limewashing, etc.	5
Total	16

I must say that I consider the complaints thus referred to by H.M. Inspector of Factories were justified.

Workshops.

The Town Council is primarily responsible for the sanitary condition of the workshops, of which there are 313 on the Register.

Twenty-nine notices have been served upon H.M. Inspector of Factories under Section 133 of the Factory and Workshops Act, 1901, and one Certificate was granted under Section 14.

Many premises were found being used as workshops that could not be considered suitable for the purpose, viz., woodhouses and outbuildings at the rear of dwelling houses, in some cases without sanitary accommodation and inadequate means of ventilation. These are being dealt with.

Rag Flock Act, 1911.

Samples of Rag Flock were taken and submitted for analysis and were found to be in conformity with the Regulations and as follows:—

No. 1. 10.7 parts of chlorine per 100,000.
No. 2. 7.1 ditto

Van Dwellings.

Seven inspections were made of caravans, etc., within the Borough, and with one exception, were found to be kept in accordance with the Council's Bye-laws relating thereto.

In conclusion, I wish to again express my thanks to the members of the Town Council and to all my brother officials for their kind consideration and support, particularly to my Assistant, Mr. Martin.

I am, Gentlemen,
Your obedient Servant,
L. CHADWICK, M.S.I.A.,
Sanitary Inspector.